Hill Air Force Base, Utah

Final
Environmental Assessment
for Proposed Base Exchange

March 2000

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FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED BASE EXCHANGE AT HILL AIR FORCE BASE, UTAH

Description of the Proposed Action

The Proposed Action is the construction and operation of a new Base Exchange (BX) shopping center at Hill Air Force Base (AFB). The new facility is needed to accommodate the projected increase in sales and operational goals and to provide the additional parking spaces needed to adequately service the facility's clientele. The existing facility is of insufficient size to accommodate the increased usage and there is no room for future expansion.

Summary of Environmental Impacts of the Proposed Action

Surface Water

The Proposed Action would have no significant impact on surface water quality in the area. There may be minor, short-term impacts due to increased sediment run-off associated with ground disturbing activities during construction. These would be kept to a minimum with the use of standard construction practices, which may include:

- Minimizing the size of the disturbed area associated with the construction site;
- Stockpiling removed soils and protecting them from wind and water erosion;
- Replacing stockpiled soils where possible following construction; and
- Re-vegetating disturbed areas, as necessary.

Groundwater

The Proposed Action would have no adverse impacts on groundwater quality.

Soils

The Proposed Action would have no significant impact on soils in the area. There may be minor, short-term impacts as a result of soil erosion associated with ground disturbing activities, but these would be kept to a minimum with the use of standard construction practices described above.

Vegetation

The Proposed Action would have no significant impact on vegetation in the area. Construction of the associated parking lot for the new BX facility would impact approximately 3.9 acres of native grasses. No threatened or endangered species reside at the site.

Wetlands

The Proposed Action would have no impact on wetlands. There are no wetlands in the vicinity of the proposed site.

Air Quality

The Proposed Action would have no significant impact on air quality. Elevated levels of particulate matter from construction activities would be kept to a minimum with the use of appropriate dust control measures, such as watering and/or chemical stabilization. The

combustion emissions from heavy-duty construction equipment would be short-term and would not exceed any air quality standards.

Construction of the new facility would result in an additional 170 parking spaces. This is below the number of spaces for which Hill AFB would be required to apply for an Air Quality approval order. In addition, a traffic study was conducted for the site that shows there is sufficient access to the parking lot so as not to cause significant delays.

All refrigerants used at the new facility (for walk-in refrigerators, coolers, air conditioners, etc.) would be EPA-approved. No Class 1 ozone depleting compounds (ODCs) would be used.

Wildlife

The Proposed Action would have no adverse impact on wildlife. No threatened or endangered species reside at the site.

Archaeological/Historical

The proposed impact would have no adverse impact on cultural resources. There are no known archaeological or historical resources located on the parcels to be developed. During construction activities, a member of the Hill AFB Cultural Resources Preservation Office would be present. If any potentially significant archaeological or historic artifacts were discovered, work would stop until a proper assessment of the situation could be made.

Land Use

The Proposed Action would have no adverse impact on land use. The placement of this commercial facility is consistent with the Base's current land-use plan.

Noise

The Proposed Action would have no significant impact on noise levels in the area. Short-term construction noise would occur during daylight hours.

Health and Safety

Worker health and safety hazards present during construction of the proposed facility would be typical of small construction activities. All Occupational Safety and Health Administration (OSHA) requirements would be followed during construction work to minimize potential risks. There would be no long-term health and safety impacts from the Proposed Action.

Transportation

The term Level of Service (LOS) characterizes the operational conditions of a roadway with respect to speed, travel time, comfort/convenience, traffic interruptions, and freedom to maneuver. The Proposed Action would cause the traffic level at the intersection of 6th Street and F Avenue to fall below the desired LOS. However, this impact could be mitigated by signalizing the intersection and installing left and right turn lanes.

Socioeconomic

The Proposed Action would not adversely impact the socioeconomic conditions at Hill AFB. In addition to the jobs created by short-term construction activities, the new facility would generate approximately 30 to 50 permanent new employment positions.

Cumulative Impacts

The Proposed Action is expected to have no significant adverse cumulative impacts. Short-term impacts due to construction activities would be minimized through the implementation of

standard construction practices, dust control measures, and safety precautions. Impacts on land use would not be significant, as the area is currently unoccupied, and adequate space is available for the facility and the associated parking. Traffic congestion problems could be mitigated by installing right and left turn lanes and a traffic signal at the intersection of 6th Street and F Avenue.

Conclusion

Based on the results of this environmental assessment, no significant impacts are expected from the proposed construction and operation of the new BX facility at Hill AFB. Traffic congestion concerns could be alleviated by installing the recommended signal and turn lanes. Therefore, in accordance with Air Force instruction 32-7061, a Finding of No Significant Impact (FONSI) may be issued. Preparation of an Environmental Impact Statement (EIS) is not necessary.

Hill Air Force Base, Utah

_____ _____

Authorized Signature Date

EXECUTIVE SUMMARY

The Army & Air Force Exchange Service (AAFES) is proposing to construct a new 93,369 square foot Base Exchange (BX) shopping center at Hill Air Force Base (AFB). The existing BX facility on Base is co-located with the Base Commissary and does not have sufficient space to allow for desired expansion and updating to meet the current usage requirements. In addition, there is currently limited parking available for the BX and Commissary patrons.

AAFES proposes to construct a new BX facility north of 6th Street, south of Wardleigh Road, and between E and F Avenues. This location is consistent with the land-use designations as determined in the *Hill AFB Comprehensive Plan* (USAF, 1989). Two alternative sites adjacent to the existing BX were also considered for the new BX facility.

Air Force instructions require Environmental Assessments (EAs) be completed for all proposed Air Force actions that potentially could have adverse environmental impacts. This EA analyzes the potential environmental impacts of the Proposed Action and the alternative actions, including the No-Action Alternative.

Section 1 of this report presents the purpose and need for the Proposed Action. It also includes background information on Hill AFB.

Section 2 describes the Proposed Action and alternative actions that were considered. Selection criteria for evaluating reasonable alternatives are also presented in this section.

Section 3 describes the existing environmental conditions at the site of the Proposed Action and the alternative actions.

Section 4 identifies the anticipated environmental impacts of the proposed and alternative actions, including the No-Action Alternative.

Based on the findings of this EA, no significant environmental impacts are expected from construction and operation of the new BX facility at Hill AFB. A Finding of No Significant Impact (FONSI) has been prepared and is included at the beginning of this report. Preparation of an Environmental Impact Statement (EIS) is not necessary.

SECTION 1

PURPOSE AND NEED

1.1 Background

Hill Air Force Base (Hill AFB) is located in northern Utah approximately 25 miles north of Salt Lake City. Hill AFB was established by Congressional Order in 1935 and constructed adjacent to the Ogden Army Arsenal in 1940. Hill AFB remains an active facility, with support aircraft, missile, vehicle and railroad engine maintenance and repair operations. In addition, Hill AFB provides worldwide engineering and logistics management of the F-16 fighter aircraft, and maintains both F-16 and C-130 aircraft.

Army & Air Force Exchange Service (AAFES) is proposing to build a 93,369 square foot (sq. ft.) Base Exchange (BX) shopping center in the southeast section of Hill AFB. The proposed location of the shopping center is north of 6th Street, south of Wardleigh Road, and between E and F Avenues.

1.2 Need for the Proposed Action

The existing BX facility at Hill AFB is co-located with the Base Commissary across the street from the site of the Proposed Action. The existing site prohibits expansion and updating of the facility to meet current sales and operational goals. Due to the increase in military and civilian jobs at the base, the current facility is inadequate to serve the existing clientele. In addition, there are insufficient parking spaces available for the current facility usage. The existing Commissary and Exchange establish the southern zone of the retail district for the installation.

1.3 Purpose for the Proposed Action

The purpose for the Proposed Action is to provide a facility that contains sufficient space for both the BX and the associated parking spaces. The physical constraints of the existing BX site do not permit the facility expansion required to meet operational goals, or the increase in parking spaces that is needed to adequately service the facility.

1.4 Regulatory History

In 1986, Hill AFB undertook the investigative fieldwork necessary for the Installation Restoration Program (IRP) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) efforts at the Base. In 1991, a Federal Facility Agreement was signed by Hill AFB, the Environmental Protection Agency (EPA), and the Utah Department of Health (now the Utah Department of Environmental Quality). The purpose of the agreement was to establish a framework and schedule for developing, implementing, and monitoring appropriate remedial actions at Hill AFB in accordance with the National Contingency Plan (NCP). As part of these efforts, nine operable units (OUs) have been designated at Hill AFB.

The subject site is located within OU 9 and is located within 1/2 mile of OU 3 and OU 7 (see Figure 1-1). Based on distance and assumed groundwater gradient, it is anticipated that only OU 9 could potentially impact the site. OU 9 is defined as all areas of Hill AFB not included in the other OUs or investigation/remediation programs. A Preliminary Assessment of OU 9 was performed in 1994, and a Site Inspection was performed in 1999. Based on the results of these

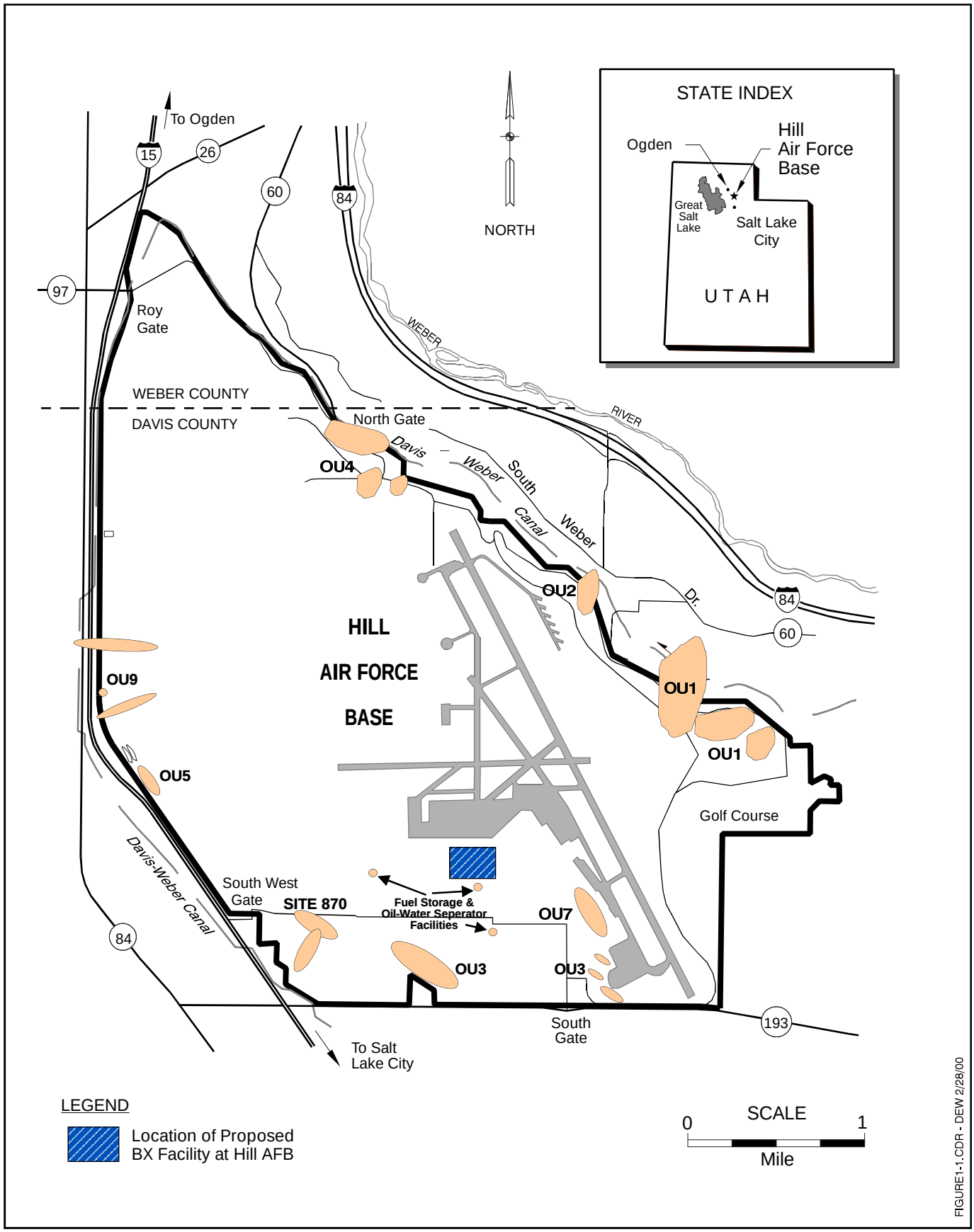

Figure 1-1. Location of the Proposed Action

documents, a Remedial Investigation/Feasibility Study (RI/FS) Work Plan was developed in 1999.

1.5 Applicable Requirements

There are several regulatory environmental programs that apply to the Proposed Action. These program requirements are described below.

The *National Environmental Policy Act of 1969 (NEPA)* mandates that federal agencies analyze the potential environmental impacts of a proposed action and evaluate the reasonable and feasible alternatives. The Environmental Assessment (EA) will result either in a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS), in the event that significant impacts are identified. Air Force Instruction (AFI) 32-7061*, The Environmental Impact Analysis Process,* describes the Air Force process for the preparation of an EA. Both the NEPA guidelines and AFI 32-7061 were followed in the preparation of this EA.

The Utah Air Quality regulations (UAC R307) apply to the construction of this project. The Proposed Action would occur in an area designated as a "maintenance" area for ozone (O_3). Therefore, the federal conformity requirements at 40 CFR 93.153 require a conformity determination, unless it can be shown that the increased emissions are *de minimis* or that the action is specifically exempted.

SECTION 2

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This section describes the Proposed Action and alternatives for the new BX facility at Hill AFB. The selection criteria for site location are presented, and the proposed and alternative actions are described.

The new BX facility would include the following:

Total Building Area: 93,369 sq. ft.

Retail	55,377
Stock Room	14,128
Admin	4,340
Misc.	19,524 (Misc. includes Beauty shop, Flower shop, Optical, Nutrition, Concessions, Barber, etc.)

Construction of the new BX facility is anticipated to begin in early 2001.

2.1 Site Selection Criteria

The following selection criteria were used to evaluate possible alternatives to the proposed BX facility location. To be considered, alternatives must:

- Be near existing utilities;
- Be located within the retail area of the installation;
- Be of sufficient size to house the new BX facility and the associated parking required; and
- Be consistent with the *Hill AFB Comprehensive Plan* (USAF, 1989, currently being updated).

Three locations adjacent to the existing BX facility were identified as possible alternatives for the new BX facility. These alternatives are discussed in more detail below. The general location of the Proposed Action and alternatives is shown on Figure 2-1. Site Photographs are shown in Appendix A.

2.2 Proposed Action

The Proposed Action consists of locating the new BX on the south end of the existing paved parking lot bounded by 5th Street and E Avenue. The front of the BX would face south onto 5th Street. This is the orientation most desired by AAFES. Figure 2-2 shows the proposed BX in relation to the surrounding roads.

Because the new BX would be constructed on an existing parking lot, existing pavement would need to be removed to build the facility. The lot currently contains 1,000+ parking spaces; the new facility would displace approximately 300 of those spaces. However, under the Proposed Action, approximately 470 parking spaces would be added south of 5th Street, on 3.9 acres of currently undeveloped land across from the existing parking lot. This would result in a net gain of approximately 170 spaces.

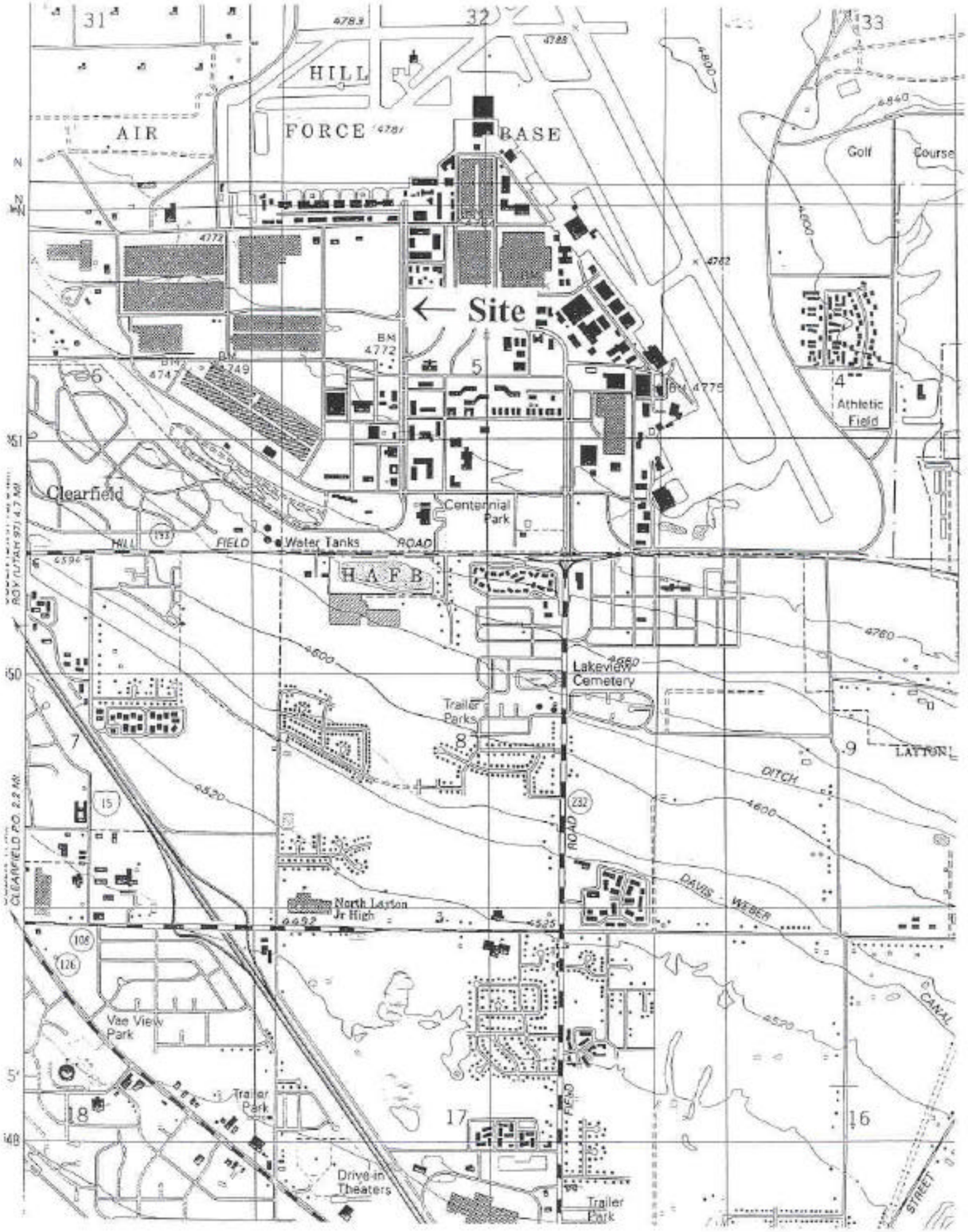

Figure 2-1. Location Map

(Map Based on Farmington UT USGS Quadrangle)

Figure 2-2 Detailed Area of the Proposed Action

Alterations to the existing parking lot would include re-striping, landscaped curbed parking islands, cart corrals and lighting. Employee parking would be directly north of the BX in existing parking spaces, allowing for the continued use of this parking area by surrounding offices.

Under the Proposed Action, current vehicular access and exits from the customer parking lot appears to be sufficient. In addition, customer parking and delivery zones would be totally separated, eliminating vehicular conflicts.

2.3 Alternative 1

Alternative 1 locates the new BX south of Building 405 in the undeveloped area north of 5th Street, east of F Avenue, and west of the existing paved parking lot (see Figure 2-3). The front of the BX would face east, with a slight angle to the south. Customer parking would be located in the existing parking lot. Alterations to the existing parking lot would include re-striping, landscaped curbed parking islands, cart corrals, and lighting. Additional pavement would be required in the handicap parking area located at the front of the BX. Employee parking at the rear of the BX is optional under this alternative.

The BX would be constructed on undeveloped land, therefore no demolition work would be required. Current vehicular access and exit points appear sufficient under this alternative. The main delivery area is totally separated from the customer parking lot, eliminating vehicular conflicts with customers. However, road use would require coordination with vehicular traffic from Building 402 and food court deliveries would require passage through the customer parking lot.

2.4 Alternative 2

Alternative 2 is similar to Alternative 1 except that the front of the BX would face east (see Figure 2-4). This allows for more efficient use of the land in front and behind the new BX. As with Alternative 1, the BX would be constructed on undeveloped land, therefore no demolition work would be required. Current vehicular access and exit points appear sufficient under this alternative. The main delivery area is totally separated from the customer parking lot, eliminating vehicular conflicts with customers. However, road use would require coordination with vehicular traffic from Building 402 and food court deliveries would require passage through the customer parking lot.

2.5 No-Action Alternative

Under the No-Action Alternative, the parcel of land identified for the development of the new BX would not be developed; neither the new building nor the parking area would be constructed. The No-Action Alternative would maintain the existing BX facility. It would not allow for the expansion of the BX to meet current sales and operational goals or provide for the additional parking needed to adequately serve the facility.

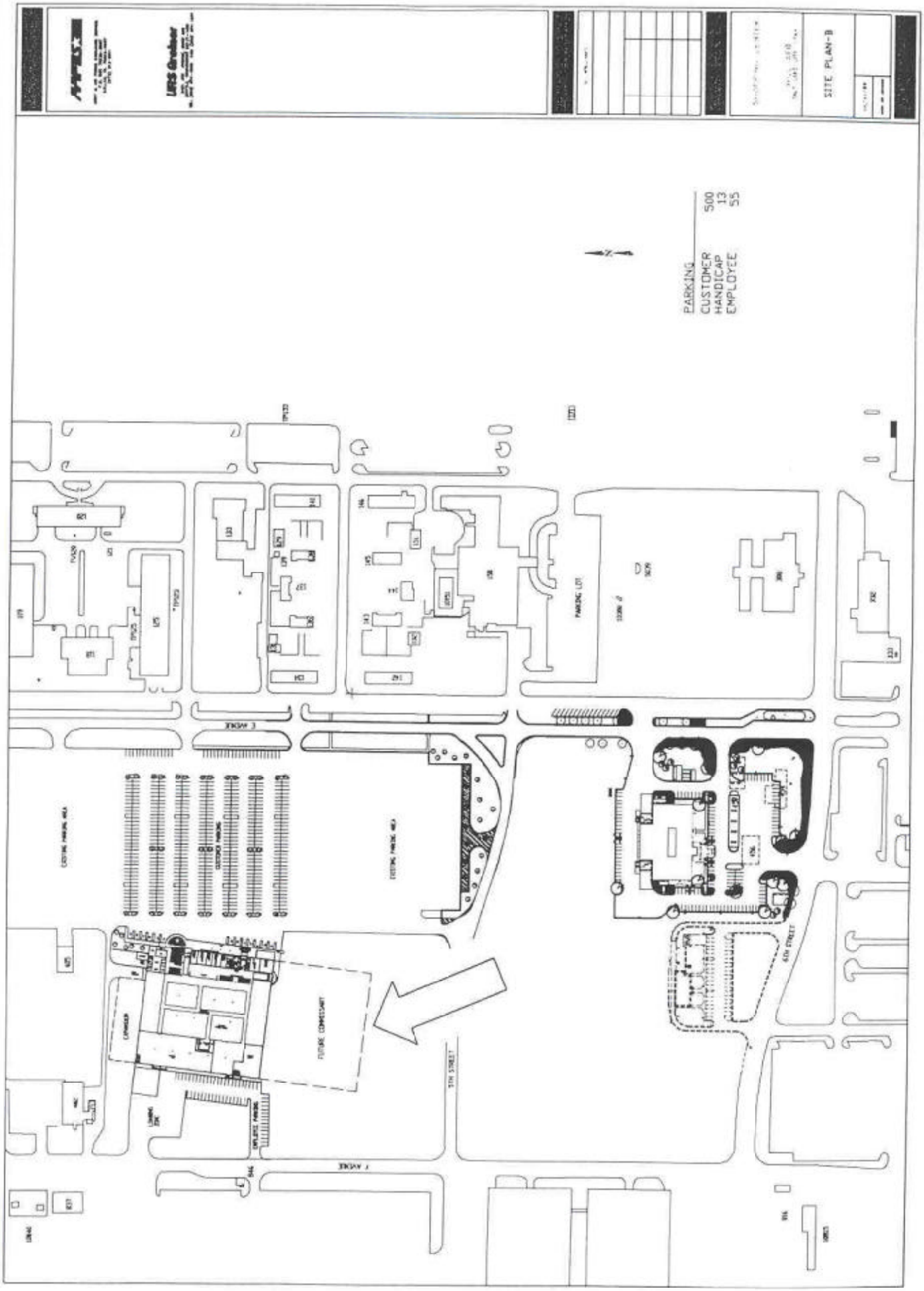

Figure 2-3 Location of Alternative 1

Figure 2-4 Location of Alternative 2

SECTION 3

AFFECTED ENVIRONMENT

Description of the Existing Environment

The purpose of this section is to establish the base condition of the parcel to be developed. This information was gathered through site visits, existing documents, and coordination with Hill AFB staff.

3.1 Surface Water

There are no lakes, rivers, creeks or other surface waters on or in vicinity of the Proposed and Alternative Action locations. The nearest stormwater retention pond is located approximately 1/2 mile from the site (Pond 3).

3.2 Groundwater

There is no specific groundwater information for the Proposed and Alternative Action locations. However, IRP Site 0T097 (Facility 454), which is the gas station on the corner of 6th Street and E Avenue, has had monitor wells installed and is located within 800 feet of the site. Under Facility 454, there is a perched aquifer on a clay confining layer at a depth of about 40 to 45 feet below ground surface (bgs). According to Hill AFB personnel (conversation with Mark Loucks, July 7, 1999) the direction of flow is to the northwest, which would result in contamination from Building 454 moving toward the site. The regional aquifer is about 125 feet bgs.

3.3 Geology and Soils

Regionally, the site of the Proposed Action and Alternatives is located within the Great Basin, the area of internal drainage between mountains of the Wasatch Range and the Sierra Nevada Range. Locally, the site is located near the edge of a piedmont terrace, consisting of Pleistocene materials mapped as Provo Formation and younger shore facies of Lake Bonneville (URS, 1999). The site's soil is a well-drained silty sand.

The surface soil in this area is part of OU 9 and has been classified as "Type 2" in the *Hill AFB Environmental Restoration Management Plan* (Montgomery Watson, 1998). Type 2 areas include areas where only storage of hazardous substances or petroleum products has occurred, but no release, disposal, or migration from adjacent areas has occurred.

3.4 Vegetation

The vegetation in the vicinity of the Proposed and Alternative Actions consists of mowed grasses, sagebrush, shrubs, and trees (Russian olive).

3.5 Wetlands

No wetlands were identified on site or adjacent to the parcel to be developed.

3.6 Air Quality

Hill AFB is located in Davis County. Davis County is a maintenance area for ozone. In addition, the county is an attainment area according to the National Ambient Air Quality Standards (NAAQS) standards for particulate matter (PM_{10}), sulfur oxides (SO_x), nitrogen oxide (NO_x), and carbon monoxide (CO).

3.7 Wildlife

There are no known federally listed threatened or endangered species located on Hill AFB, nor are there any state-listed species of special concern.

3.8 Archaeological and Historical Resources

There are no known historical, cultural or archaeological resources located in the vicinity of the Proposed Action or the Alternative Actions.

3.9 Land Use

The Proposed and Alternative Action sites consist of undeveloped land and a paved parking lot. The area to the north and east is primarily composed of office buildings. The area to the south is commercial and undeveloped land. The area to the west is undeveloped and industrial.

3.10 Noise

The primary contributor to noise impacts in this area results from aircraft operations. Vehicular traffic noise does not contribute significantly to the overall noise impacts.

3.11 Health and Safety

There are no known health and safety issues related to the Proposed or Alternative Action sites.

3.12 Transportation

A traffic analysis was prepared to determine the existing conditions and future impacts of the proposed development in regard to Level of Service (LOS). The term LOS is used to characterize the operational conditions of a roadway with respect to speed, travel time, comfort/convenience, traffic interruptions, and freedom to maneuver. The results of the traffic analysis show that three of the four intersections surrounding the proposed and alternative action location currently operate at LOS B and one at LOS C. Table 3.1 shows the LOS for each intersection.

Table 3.1

EXISTING LEVEL OF SERVICE
New BX Facility, Hill AFB

Intersection	LOS (Noon/PM)
6th Street / F Avenue	C/C
6th Street / E Avenue	B/B
Wardleigh Road / F Avenue	B/B
Wardleigh Road / E Avenue	B/B

Source: URS Greiner Woodward Clyde, 1999

A LOS of A, B, or C is considered desirable. Each of these intersections currently operates at a desirable LOS.

3.13 Socioeconomic

According to the US Census Bureau, in 1998, the population of Davis and Weber Counties combined was 417,078. These counties have averaged a growth rate of 2.3 percent between

1990 and 1998. The population of Davis and Weber Counties are anticipated to continue to grow at approximately 2.3 percent per year through the year 2010.

According to the State of Utah, the largest employer in this area is the government. Hill AFB employs more than 20,000 people, including contractor personnel. However, the long-term outlook for military staffing is uncertain. In addition, the current trend in the civil-servant government sector is to downscale staffing.

SECTION 4

ENVIRONMENTAL CONSEQUENCES

An analysis of the anticipated impacts associated with the proposed development is presented in this section. Table 4.1, following this page, summarizes these impacts.

4.1 Surface Water

Proposed Action

The Proposed Action would involve the removal of a portion of the existing parking lot and replacing the area with a building structure. This development is not anticipated to increase the existing impervious surface area north of 5th Street. However, the new parking lot would add an additional 3.9 acres of impervious surface area south of 5th Street. Surface-water drainage from this site would be collected and drained into the existing storm drains located on 5th Street and E Avenue.

There would be temporary surface run-off impacts associated with the construction operation. Standard construction practices (Best Management Practices) would be implemented to minimize the potential short-term impacts in this area. Typical Best Management Practices include:

- Limiting to the extent possible the surface area of erodible earth material exposed by clearing, grubbing, excavation and fill operations;
- Covering exposed areas with pavement, fast growing grasses, sod, mulches, fiber mats or other control devices and methods to keep erodible soils in place; and/or
- Stabilizing or containing mounds of earth, construction material and debris to minimize surface erosion into off-site areas.

Alternative Actions

Both Alternative 1 and Alternative 2 would involve construction of the new BX on undeveloped land. Under these alternatives, there would be minimal increase to the existing impervious surface area for handicapped parking and optional employee parking. Surface-water drainage from this site would be collected and drained into the existing storm drains located on 5th Street and E Avenue.

Under Alternative 1 and Alternative 2, there would be short-term surface run-off impacts associated with construction activities. As with the Proposed Action, Best Management Practices would be implemented to minimize potential impacts to surface waters.

The No-Action Alternative would not impact surface water.

4.2 Groundwater

There are no expected impacts to groundwater from the Proposed Action, Alternative 1, or Alternative 2. No underground storage tanks would be installed, and the building would be constructed on a sealed, concrete foundation.

The No-Action Alternative would not impact groundwater.

Table 4.1
ANTICIPATED ENVIRONMENTAL IMPACTS
New BX Facility, Hill AFB

Environmental Category	Proposed Action	Alternative 1	Alternative 2	No-Action
Surface Water	The proposed parking lot south of 5th Street would add approximately 3.9 acres of impervious surface area. Potential short-term increase in sediment run-off in the storm drainage system from ground-disturbing activities during construction. No long-term impact.	Potential short-term increase in sediment run-off in the storm drainage system from ground-disturbing activities during construction. No long-term impact.	Potential short-term increase in sediment run-off in the storm drainage system from ground-disturbing activities during construction. No long-term impact.	No anticipated impact
Groundwater	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact
Geology and Soils	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact
Vegetation	Minor impact associated with construction activities on approximately 3.9 acres of currently undeveloped grassy areas. No significant impact.	Minor impact associated with construction activities on approximately 2.1 acres of currently undeveloped grassy areas. No significant impact.	Minor impact associated with construction activities on approximately 2.1 acres of currently undeveloped grassy areas. No significant impact.	No anticipated impact
Wetlands	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact
Air Quality	Short-term fugitive dust emissions and equipment emissions during construction activities. No long-term impact.	Short-term fugitive dust emissions and equipment emissions during construction activities. No long-term impact.	Short-term fugitive dust emissions and equipment emissions during construction activities. No long-term impact.	No anticipated impact
Wildlife	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact
Archaeological/Historical/ Cultural	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact
Land Use	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact
Noise	Short-term construction noise. No long-term impact.	Short-term construction noise. No long-term impact.	Short-term construction noise. No long-term impact.	No anticipated impact
Health and Safety	Short-term hazards related to construction activities. No long-term impact.	Short-term hazards related to construction activities. No long-term impact.	Short-term hazards related to construction activities. No long-term impact.	No anticipated impact

Environmental Category	Proposed Action	Alternative 1	Alternative 2	No-Action
Transportation	The intersection of 6th and F Avenue, currently unsignalized, fails in the proposed conditions as an unsignalized intersection. A traffic signal is needed to obtain LOS C or better.	The intersection of 6th and F Avenue, currently unsignalized, fails in the proposed conditions as an unsignalized intersection. A traffic signal is needed to obtain LOS C or better.	The intersection of 6th and F Avenue, currently unsignalized, fails in the proposed conditions as an unsignalized intersection. A traffic signal is needed to obtain LOS C or better.	There would continue to be insufficient parking available to adequately service the facility's clientele.
Socioeconomic Conditions	No adverse impact. Approximately 30 to 50 new jobs would be created.	No adverse impact. Approximately 30 to 50 new jobs would be created.	No adverse impact. Approximately 30 to 50 new jobs would be created.	The desired expansion and updating of the BX to meet current sales and operational goals could not occur.
Environmental Justice	No anticipated impact	No anticipated impact	No anticipated impact	No anticipated impact

Source: URS Greiner Woodward Clyde, 1999

4.3 Geology and Soils

Impacts on soils in the area would be limited to construction activities associated with the Proposed Action. Similar impacts to soils would be expected from Alternative 1 and Alternative 2. These activities would increase the potential for soil erosion. To minimize this potential, standard construction practices discussed in Section 4.1 would be implemented.

The No-Action Alternative would have no impact on soils in the area.

4.4 Vegetation

Proposed Action

Under the Proposed Action, the new BX would be located on the north side of 5th Street. This area is currently an asphalt-paved parking lot. The construction of the proposed BX facility would not impact the vegetation on this site.

The new parking lot located on the south side of 5th Street would remove approximately 3.9 acres of the existing grassy area. There are no known threatened or endangered plant species located at this site. Several trees are located adjacent to 5th Street; however, it is the intention to minimize disturbance of the trees and maintain them as a buffer.

Alternative Actions

Both Alternative 1 and Alternative 2 would involve constructing the new BX on currently undeveloped land. The building surface area would be approximately 2.1 acres. As with the Proposed Action, no adverse impact to vegetation is expected. There are no known threatened or endangered plant species located at the site.

The No-Action Alternative would not impact existing vegetation.

4.5 Wetlands

There are no wetlands located in the vicinity of the Proposed Action, Alternative 1, or Alternative 2. Therefore, no impacts to wetlands are anticipated by the construction of the new BX facility or the associated parking lot.

The No-Action Alternative would not impact wetlands.

4.6 Air Quality

Proposed Action

Davis County has been designated a ‘‘maintenance” area for ozone. EPA regulations (40 CFR 93.153) require that federal actions within such areas include a conformity determination, unless the affected emissions are *de minimis* or the action is specifically exempted. The *de minimis* values that apply in this case are 100 tons/year of nitrogen oxides (NO_X) and 100 tons/year of volatile organic compounds (VOCs). The Proposed Action would result in NO_X and VOC emissions from construction activities at the site. However, Appendix B includes an analysis showing that construction activities associated with the Proposed Action would have potential emissions well below the *de minimis* values; therefore, no conformity determination is required.

Construction-related dust from the Proposed Action would be short-term. Utah Air Conservation Rule, R307-12-3.B, applies to construction activities on land areas over ¼ acre in size. It requires the implementation of measures to prevent fugitive particulate matter from becoming airborne.

Such measures may include:

- Planting vegetative cover;
- Providing synthetic cover;
- Watering and/or providing chemical stabilization; and/or
- Providing wind breaks.

Construction-related dust would be kept to a minimum with the implementation of dust control procedures, as necessary.

The Utah Division of Air Quality requires that a Notice of Intent (NOI) be submitted for an Air Quality Approval Order if parking facilities will be modified to increase the number of parking stalls by more than 350 spaces. The Proposed Action would result in a net increase of 170 spaces; therefore, a NOI is not required.

All refrigerants used in the air conditioning units, chillers, and refrigerators at the new BX facility would be EPA-approved. No Class 1 ozone depleting compounds (ODCs) would be used at this facility. In addition, paint booth facilities that existed at the old BX facility have been abandoned and will not be installed at the new BX site.

Alternative Actions

Construction-related equipment emissions and fugitive dust emissions for both Alternative 1 and Alternative 2 would be similar to the emissions generated by the Proposed Action. NO_X and VOC emissions would be well below the *de minimis* values so no conformity determination would be required. Construction-related dust wold be kept to a minimum by implementing, as necessary, the dust control procedures identified above. As with the Proposed Action, only EPA-approved refrigerants would be used at the new BX facility and no new paint booths would be installed. Therefore, no significant impacts to air quality are expected as a result of Alternative 1 or Alternative 2.

There would be no construction activities associated with the No-Action Alternative. The No-Action Alternative would not impact air quality in the area.

4.7 Wildlife

The proposed BX development would not impact any protected species or protected habitat.

The No-Action Alternative would not impact wildlife, protected species or their habitat.

4.8 Archaeological and Historical Resources

According to the Hill AFB Cultural Resources Preservation Officer, there are no known archaeological or historical resources located on the parcels to be developed.

The Cultural Resources Preservation Office has requested that notification be made to them two weeks prior to commencing construction of the Proposed Action, Alternative 1, or Alternative 2. During the construction, a member of the Cultural Resources Preservation Office staff would be present. If any potentially significant archaeological or historical artifacts were discovered, work would stop until a proper assessment of the situation could be made.

The No-Action Alternative would not impact any archaeological or historical resources.

4.9 Land Use

Proposed Action

The proposed land use change would not adversely impact the future land-use plan of Hill AFB. The placement of this commercial retail facility is consistent with the current land-use plan. In addition, the conversion of the vacant parcel south of 5th Street to a parking lot is consistent with the future land use designation of the area.

Alternative Actions

As with the Proposed Action, the placement of the new BX facility in both Alternative 1 and Alternative 2 is consistent with the current land-use plan for Hill AFB. Therefore, no adverse impacts to land use are expected as a result of these alternatives.

The No-Action Alternative would not impact adjacent land use.

4.10 Noise

Short-term noise from the Proposed Action, as well as from Alternative 1 and Alternative 2, would be associated with the construction of the new BX facility. Long-term noise levels are not anticipated to be significant, in terms of the overall noise impacts associated with the aircraft operations.

The No-Action Alternative would not increase noise levels at Hill AFB.

4.11 Health and Safety

The Proposed Action, Alternative 1, and Alternative 2 would all have the typical health and safety hazards associated with small construction sites using earth-moving equipment. Due to the proximity of automobile traffic and pedestrians, care would be taken to place barricades and flaggers on site as necessary during construction activities. All OSHA requirements would be met during construction activities. There would be no long-term health and safety impacts associated with the Proposed Action or with Alternatives 1 and 2.

There are no health and safety impacts associated with the No-Action Alternative.

4.12 Transportation

The Proposed Action, Alternative 1, and Alternative 2 would all result in the need for signalizing the intersection of 6th Street and F Avenue. This intersection would fall below LOS C if it were to remain unsignalized. In addition, left turn and right turn lanes are needed to bring this intersection to LOS C or better. Details of the impacts to local traffic are outlined in the *Site Traffic Analysis* (URSGWC, 1999).

The No-Action Alternative would not increase traffic levels.

4.13 Socioeconomic

Socioeconomic conditions at Hill AFB would not be adversely impacted by either the Proposed Action, Alternative 1, or Alternative 2. Short-term employment opportunities would exist during construction activities. In addition, the new facility would generate approximately 30 to 50 new permanent positions.

The No-Action Alternative would not alter the existing socioeconomic conditions at Hill AFB.

4.14 Environmental Justice

The proposed improvements associated with the Proposed Action, Alternative 1, and Alternative 2, would not impact any low income or minority persons. Since the new facility would not involve the relocation of any persons or dwelling units, no detailed Environmental Justice analysis was completed.

The No-Action Alternative would not impact any low income or minority person.

4.15 Cumulative Impacts

Neither the Proposed Action, Alternative 1, nor Alternative 2 is expected to have any significant adverse cumulative impacts. Short-term impacts due to construction activities would be minimized through the implementation of standard construction practices, dust control measures, and safety precautions. Impacts on land use would not be significant as the area is currently unoccupied, and adequate space is available for the facility and the associated parking. Traffic congestion problems could be mitigated by installing right and left turn lanes and a traffic signal at the intersection of 6th Street and F Avenue.

SECTION 5

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SECTION 6

REFERENCES

Montgomery Watson. *Environmental Restoration Management Action Plan for Hill Air Force Base, Utah.* May 1998.

The EDR-Radius Map with GeoCheck, EDR Inquiry Number 389653.5s. July 12, 1999.

URS Greiner Woodward Clyde. *Draft Site Traffic Analysis For AAFES at Hill Air Force Base Proposed Base Exchange*. June 1999.

URS Greiner Woodward Clyde. *Final Geotechnical Report, Hill Air Force Base – BX Facility*. July 1999.

U.S. Air Force. *Hill Air Force Base Comprehensive Plan*. August 1989.

APPENDIX A
SITE PHOTOGRAPHS

Location of proposed action, standing near southwest corner of existing parking lot.

Near southwest corner of parking lot, looking due west along 5th Street.
Russian Olive trees on right.

Looking east-southeast across 5th Street.

Intersection of Wardleigh Road and E Avenue, looking south.
Property is across the road to the right.

APPENDIX B
POTENTIAL AIR EMISSIONS RELATED TO CONSTRUCTION ACTIVITIES

Air Emissions Calculations
Construction Equipment

Assumptions

For estimation purposes, it was assumed that the following equipment would be required for construction of the new Base Exchange (BX) shopping center at Hill AFB. The approximate time each piece of equipment would be in operation is also listed.

2 scrapers (4 weeks or 160 hours each; **320 hours total**)
4 wheeled tractors (8 weeks or 320 hours each; **1,280 hours total**)
2 track loaders (4 weeks or 160 hours each; **320 hours total**)
2 rollers (6 weeks or 240 hours each; **480 hours total**)
2 dump trucks (6 weeks or 240 hours each; **480 hours total**)
4 diesel generators for welders (12 weeks or 480 hours each; **1,920 hours total**)
4 scissor lifts (6 weeks 240 hours each; **960 hours total**)

It is assumed that all equipment will be diesel powered

Emissions

Emission factors were taken from EPA publication AP-42*, Factors for Heavy Duty Construction Equipment* (Tables II-7.1 and II-7.2) and *Emission Factors for Uncontrolled Diesel Industrial Engines* (Table 3.3-1)

Scrapers

NO_X : (3.8 lbs NO_X/hour operation) *(320 hours) = 1,216

VOC: (0.28 lbs VOC/hour operation)*(320 hours) = 89.6

Wheeled Tractors

NO_X : (1.3 lbs NO_X/hour operation) *(1,280 hours) = 1,664

VOC: (0.19 lbs VOC/hour operation)*(1,280 hours) = 243.2

Track Loader

NO_X : (0.83 lbs NO_X/hour operation) *(320 hours) = 265.6

VOC: (0.10 lbs VOC/hour operation)*(320 hours) = 32

Roller

NO_X : (0.86 lbs NO_X/hour operation) *(480 hours) = 412.8

VOC: (0.07 lbs VOC/hour operation)*(480 hours) = 33.6

Dump Trucks

Dump trucks were conservatively estimated to have the same emissions as an off-highway truck

NO_X : (4.2 lbs NO_X/hour operation) *(480 hours) = 2,016

VOC: (0.19 lbs VOC/hour operation)*(480 hours) = 91.2

Diesel Generators for Welders

A 600-hp generator was assumed

NO_X : (600 hp)*(0.31 lbs NO_X/hp-hour) *(1,920 hours) = 35,712

VOC:

Exhaust: (600 hp)*(2.47x10-3 lbs VOC/hp-hour)*(1,920 hours) = 2,845.4

Crankcase: (600 hp)*(4.41x10-5 lbs VOC/hp-hour)*(1,920 hours) = 47.2

2,892.7

Scissor Lifts

The miscellaneous category emissions were used for scissor lifts)

NO_X : (1.7 lbs NO_X/hour operation) *(960 hours) = 1,632

VOC: (0.15 lbs VOC/hour operation)*(960 hours) = 144

Emissions Summary

Equipment	NO_X	VOC
Scrapers	1,216	89.6
Wheeled tractors	1,664	243.2
Track Loader	265.6	32
Roller	412.8	33.6
Dump Trucks	2,016	91.2
Generators	35,712	2,892.7
Scissor Lifts	1,632	144
Total:	42,918.4 lbs = 21.5 tons	3,526.3 lbs = 1.8 tons